

**To:** Wall, Dan[wall.dan@epa.gov]  
**Cc:** McKean, Deborah[mckean.deborah@epa.gov]; Rauscher, Jon[Rauscher.Jon@epa.gov]  
**From:** Black, Ned  
**Sent:** Thur 8/13/2015 6:10:23 PM  
**Subject:** RE: Colorado caged fish study

What about the results?

ned black, ph.d.

us epa r9

regional cercla ecologist

415-972-3055

Please be advised I currently have limited access to email when I am not in the office (e.g., on travel), therefore please be patient with any communication delays.

**From:** Wall, Dan  
**Sent:** Thursday, August 13, 2015 11:07 AM  
**To:** Black, Ned  
**Cc:** McKean, Deborah; Rauscher, Jon  
**Subject:** RE: Colorado caged fish study

Sent to me earlier today ...

**From:** May - DNR, Melynda [<mailto:melynda.may@state.co.us>]  
**Sent:** Thursday, August 13, 2015 10:03 AM  
**To:** Pierce, Maggie  
**Subject:** Re: Sentinel fish

Here is what I know

The sentinel fish were 1.5 inch rainbow trout from the Durango Hatchery (naive fish). We put fish at three sites in the Animas (32nd St, Hatchery, and High Bridge), and one site in Junction Creek for a "control". There were three cages per site, and 12 fish per cage (the numbers don't add up to 109- so I will ask about this).

The fish were deployed on Thursday before the slug came through, and were retrieved after 96 hours of exposure.

**From:** McKean, Deborah  
**Sent:** Thursday, August 13, 2015 12:05 PM  
**To:** Wall, Dan  
**Subject:** Fwd: Colorado caged fish study

Can you handle?

Sent from my iPhone

Begin forwarded message:

**From:** "Black, Ned" <[Black.Ned@epa.gov](mailto:Black.Ned@epa.gov)>  
**Date:** August 13, 2015 at 12:01:02 PM MDT  
**To:** "McKean, Deborah" <[mckean.deborah@epa.gov](mailto:mckean.deborah@epa.gov)>, "Rauscher, Jon" <[Rauscher.Jon@epa.gov](mailto:Rauscher.Jon@epa.gov)>  
**Subject: Colorado caged fish study**

I can't find a description of the caged fish study done by Colorado Fish and Wildlife. Can one of you send me a link if it exists?

Thnx,

ned

ned black, ph.d.

us epa r9

regional cercla ecologist

415-972-3055

Please be advised I currently have limited access to email when I am not in the office (e.g., on travel), therefore please be patient with any communication delays.

**From:** McKean, Deborah

**Sent:** Wednesday, August 12, 2015 5:15 PM

**To:** Black, Ned; Delgado, Eric; Nattis, Randy; Wise, Robert

**Cc:** Loesel, Matthew; McComb, Martin; Rauscher, Jon; Hiatt, Gerald; Guria, Peter; Allen, HarryL

**Subject:** RE: Please find attached the validated data tables for Region 6 for Surface Water Samples taken Aug 6-8, 2015

Please see the attached data summary report. Can you please add to this in a form similar to that provided by Regions 6 and 8?

**From:** Black, Ned

**Sent:** Wednesday, August 12, 2015 3:48 PM

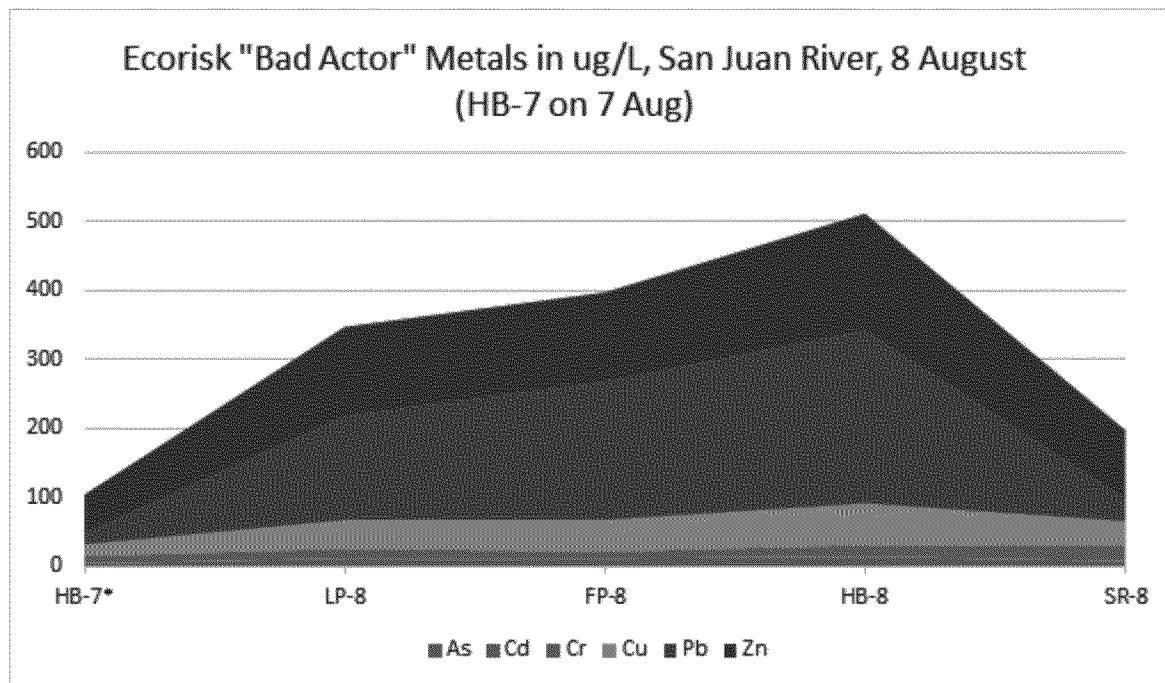
**To:** Delgado, Eric; McKean, Deborah; Nattis, Randy; Wise, Robert

**Cc:** Loesel, Matthew; McComb, Martin; Rauscher, Jon; Hiatt, Gerald; Guria, Peter; Allen, HarryL

**Subject:** RE: Please find attached the validated data tables for Region 6 for Surface Water Samples taken Aug 6-8, 2015

Gerry Hiatt and I have been looking at the data from the San Juan River sites sampled on 7 & 8 August. It looks like the pulse had not reached Hogback by August 7. On August 8, it appears the pulse was in the San Juan River, spread between Farmington and Shiprock with the peak metals concentrations at Hogback. Gerry has some further thoughts and

observations. Regardless, this has to be viewed as a very preliminary observation based almost entirely on data from 4 sites on one day. We can be much more definitive after we see data from other days.



ned black, ph.d.

us epa r9

regional cercla ecologist

415-972-3055

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**From:** Delgado, Eric  
**Sent:** Wednesday, August 12, 2015 2:14 PM  
**To:** McKean, Deborah; Nattis, Randy; Wise, Robert; Black, Ned  
**Cc:** Loesel, Matthew; McComb, Martin; Rauscher, Jon  
**Subject:** Re: Please find attached the validated data tables for Region 6 for Surface Water Samples taken Aug 6-8, 2015

Ned?

Sent from my iPhone

On Aug 12, 2015, at 15:48, McKean, Deborah <[mckean.deborah@epa.gov](mailto:mckean.deborah@epa.gov)> wrote:

How is the region 9 data interpretation coming?

**From:** Loesel, Matthew  
**Sent:** Wednesday, August 12, 2015 2:36 PM  
**To:** McKean, Deborah; McComb, Martin  
**Cc:** Delgado, Eric; Rauscher, Jon  
**Subject:** Please find attached the validated data tables for Region 6 for Surface Water Samples taken Aug 6-8, 2015

Matt Loesel

R6 Planning Section Chief

US EPA – Region 6

817-271-4586